

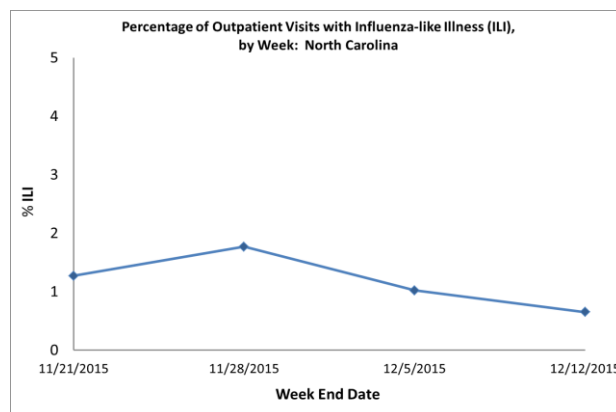
# NORTH CAROLINA WEEKLY INFLUENZA SURVEILLANCE SUMMARY #10

## 2015–16 INFLUENZA SEASON

### WEEK 49: ENDING DECEMBER 12, 2015

#### Statewide Updates

- Influenza-like illness (ILI) decreased this week.
- The geographic spread of flu was LOCAL for the week ending 12/12/2015.
- Of the 7 samples submitted to the State Laboratory of Public Health (SLPH) for viral testing this week, 0 tested positive for influenza.
- Hospital-based Public Health Epidemiologists (PHEs) reported 3 positive influenza result out of 859 samples tested during week 49 (ending 12/12/2015); all 3 positive for influenza B.



#### Regional Updates

- The proportion of visits due to ILI in Region 4 (Southeastern US) was at baseline at 1.6% for week 48 (ending 12/05/2015). The baseline for the region is 1.6%.

#### National Updates

- The proportion of outpatient visits due to ILI nationally was 1.8% for week 48 (ending 12/05/2015). The national baseline for ILI is 2.1%.

**International Updates: December 14, 2015** – Globally, influenza activity generally remained low in both hemispheres. In a few countries in Central Asia and Northern Europe, there were slight increases in influenza detections in recent weeks. In Eastern Asia, the rest of Europe, North Africa and North America, influenza activity continued at low, inter-seasonal levels. In western Asia, Oman reported increased influenza activity, predominantly due to influenza A(H1N1) and influenza B viruses, while Bahrain reported a decline in influenza activity. Few influenza virus detections were reported by countries in tropical Africa. In tropical countries of the Americas, Central America and the Caribbean, respiratory virus activity remained at low levels, with the exception of Colombia, Costa Rica and Nicaragua. In tropical Asia, countries in Southern and South East Asia reported low influenza activity overall except Thailand where activity mainly due to B viruses continued to be reported. Iran reported elevated influenza activity, predominantly influenza A(H1N1). In the southern hemisphere, respiratory virus activity was generally low in recent weeks, with low levels of influenza A(H3N2) and B virus detections reported.

#### Flu Information and Guidance

North Carolina  
[www.flu.nc.gov](http://www.flu.nc.gov)

CDC  
<http://www.cdc.gov/flu>

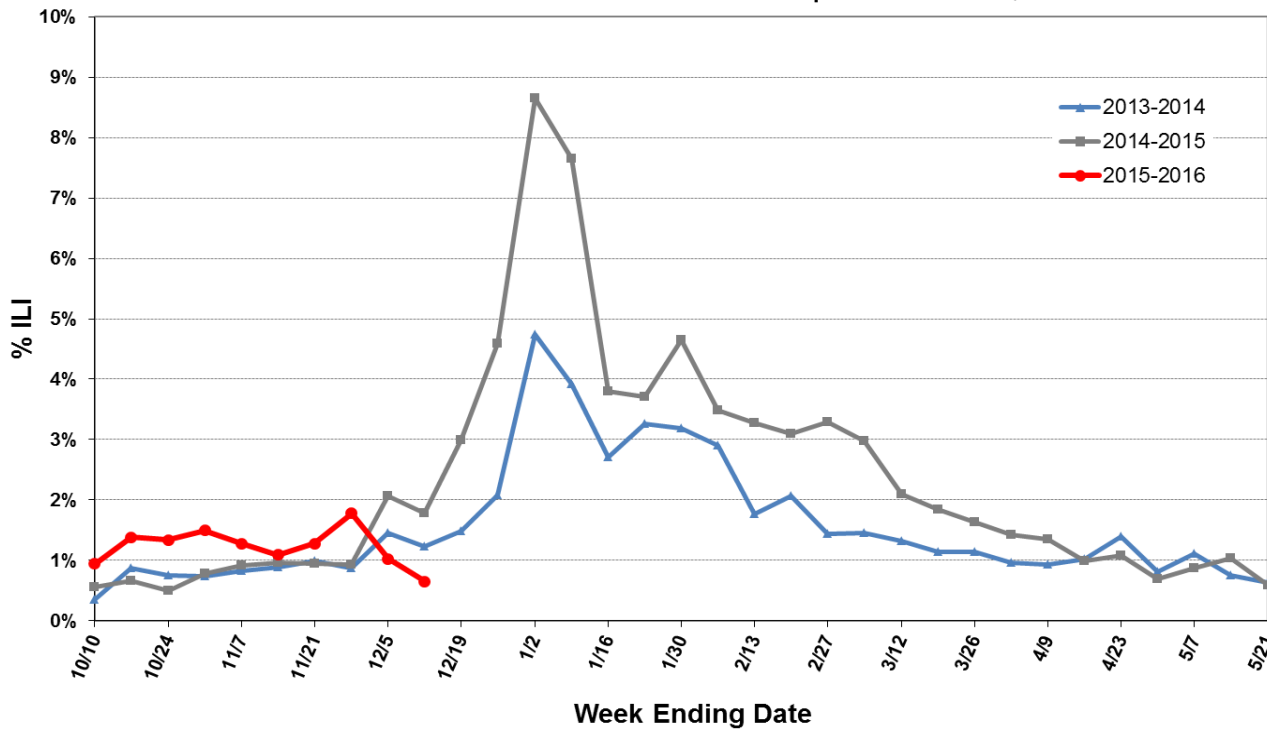
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**INFLUENZA-LIKE ILLNESSES REPORTED BY ILINET SITES, 2015-16**

Week # - Ending	(Sentinels Reporting)	# ILI	# Patients	% ILI
#40 – 10/10/2015	43	125	13262	0.94
#41 – 10/17/2015	47	196	14211	1.38
#42 – 10/24/2015	50	217	16198	1.34
#43 – 10/31/2015	49	227	15205	1.49
#44 – 11/07/2015	48	204	15972	1.28
#45 – 11/14/2015	48	163	14911	1.09
#46 – 11/21/2015	49	210	16491	1.27
#47 – 11/28/2015	43	150	8454	1.77
#48 – 12/05/2015	39	141	13804	1.02
#49 – 12/12/2015	28	61	9341	0.65

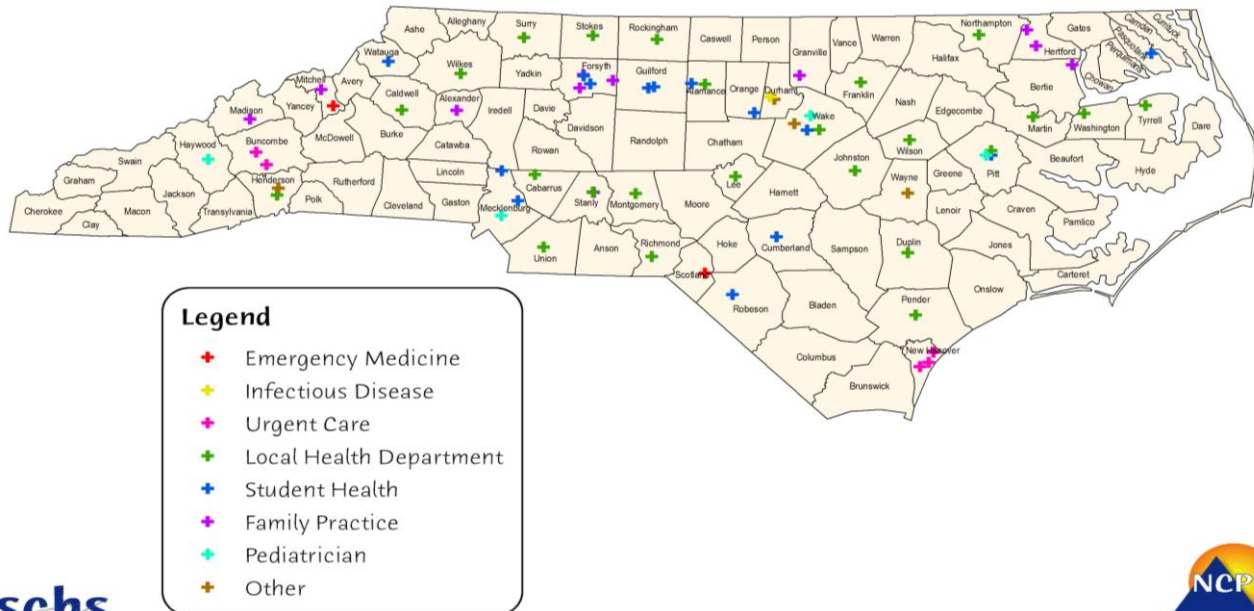
## INFLUENZA SURVEILLANCE, NC 2013-2016

### Influenza-Like Illness in ILINet Outpatient Visits,



For more information about comparable national data, visit [www.cdc.gov/ncidod/diseases/flu/weekly.htm](http://www.cdc.gov/ncidod/diseases/flu/weekly.htm) and in particular, click on the link “View Chart Data” below “Percentage of Visits for Influenza-like Illness Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet)”.

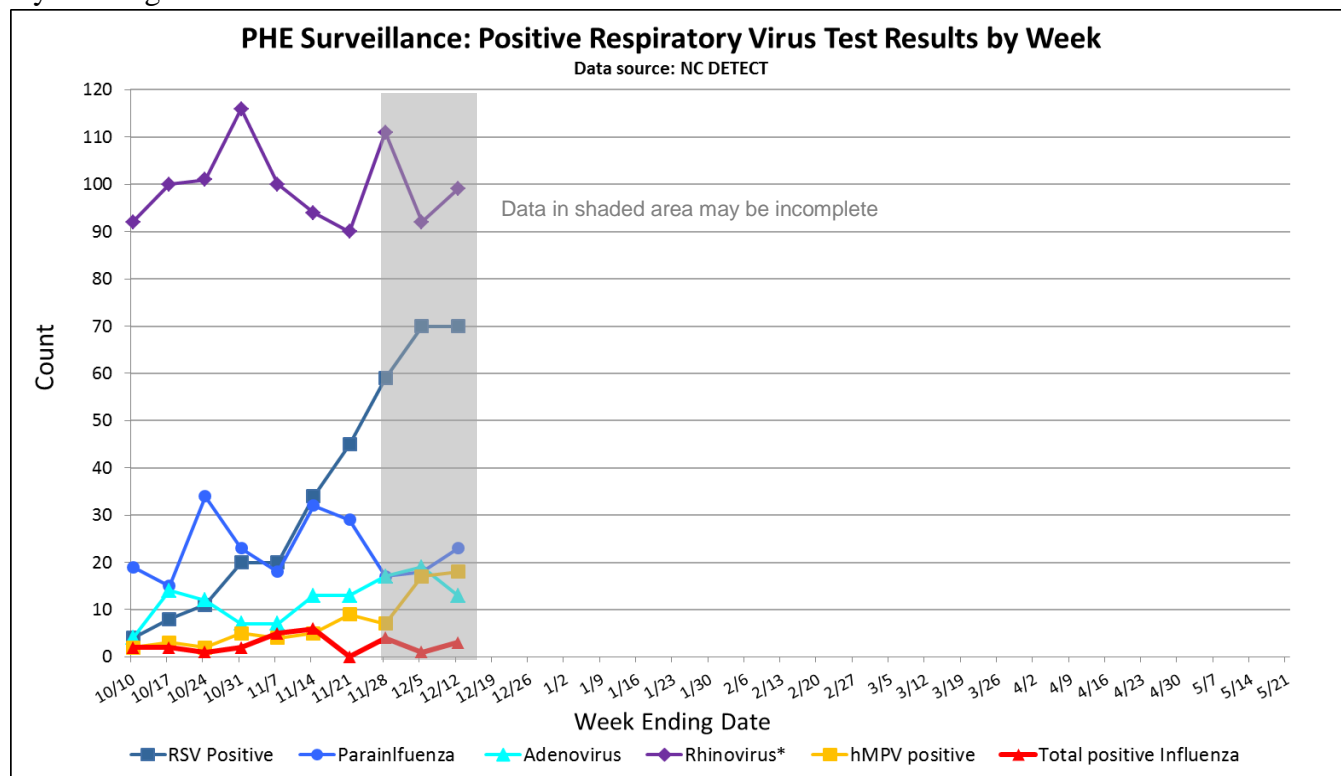
## North Carolina ILI Network Provider Locations 2015-2016



## PHE Respiratory Viral Pathogen Surveillance

Positive test results for selected respiratory viruses are reported on a weekly basis by Public Health Epidemiologists (PHEs) located in seven of the largest hospital networks across North Carolina. The graph below shows the number of positive tests for respiratory syncytial virus (RSV), parainfluenza, adenovirus, rhinovirus, and human metapneumovirus (hMPV) by week.

These data provide a useful indication of which other respiratory viruses are circulating and possibly contributing to ILI in the state. Please note that the total number of tests performed is not available from all hospital networks, so the overall proportion testing positive cannot be calculated. Also, testing protocols and practices differ among hospitals. Finally, these numbers reflect test results from participating hospitals only and might not be reflective of the entire state.



\* Most facilities use tests that do not distinguish rhinoviruses from enteroviruses.

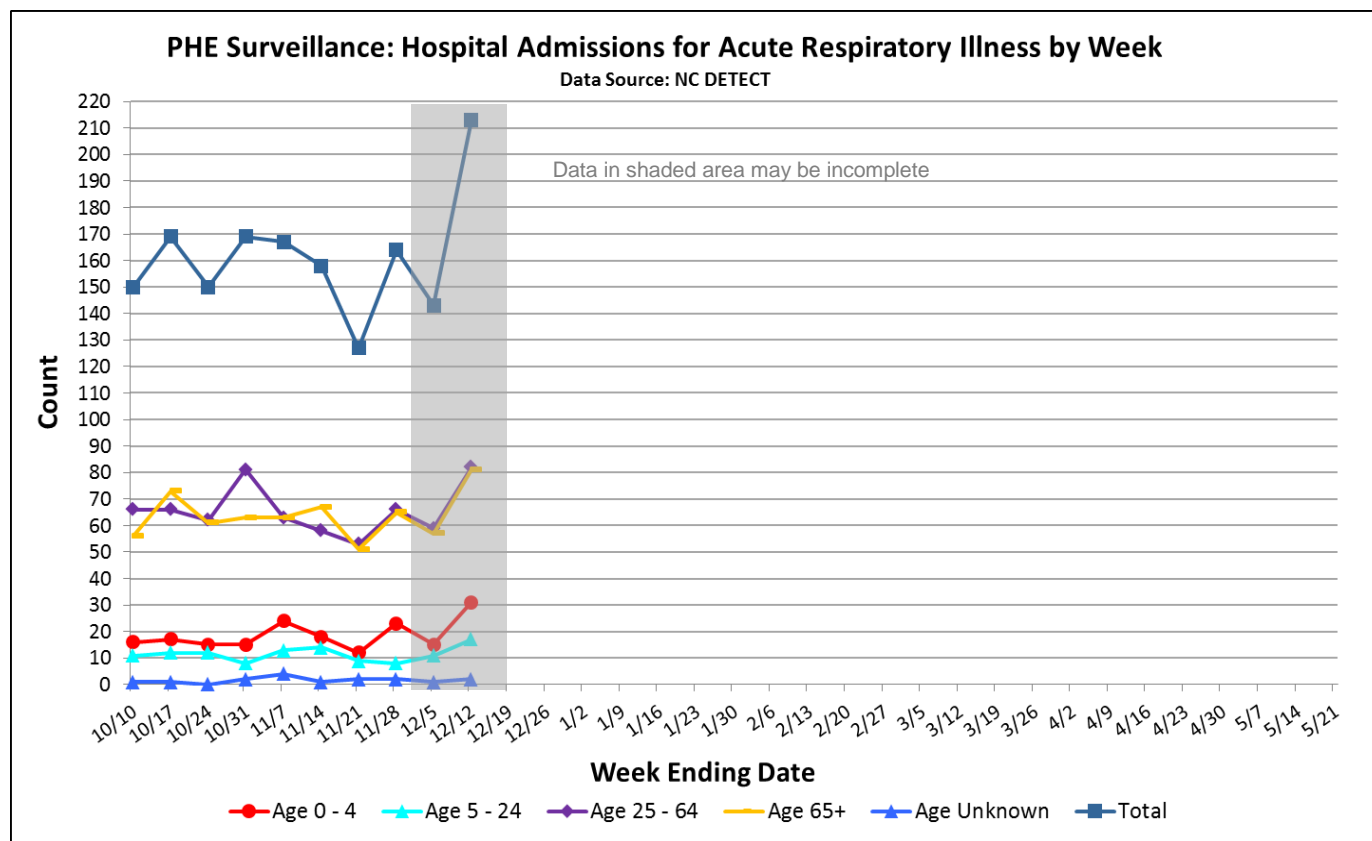
- Rhinoviruses/enteroviruses were the most frequently identified respiratory viral pathogens during week 49 (ending 12/2/2015) followed by RSV.
- Hospital-based Public Health Epidemiologists (PHEs) reported 3 positive influenza result out of 859 samples tested during week 49 (ending 12/12/2015); all 3 positive for influenza B.

Virus Type	# New positive results (12/5/2015-12/12/2015)	# Cumulative positive results (10/4/2015-12/5/2015)
A (subtype unknown)	0	3
2009 A(H1N1)	0	1
A/H3	0	0
B	3	22
<b>Total</b>	<b>3</b>	<b>26</b>

## PHE Acute Respiratory Admissions Surveillance

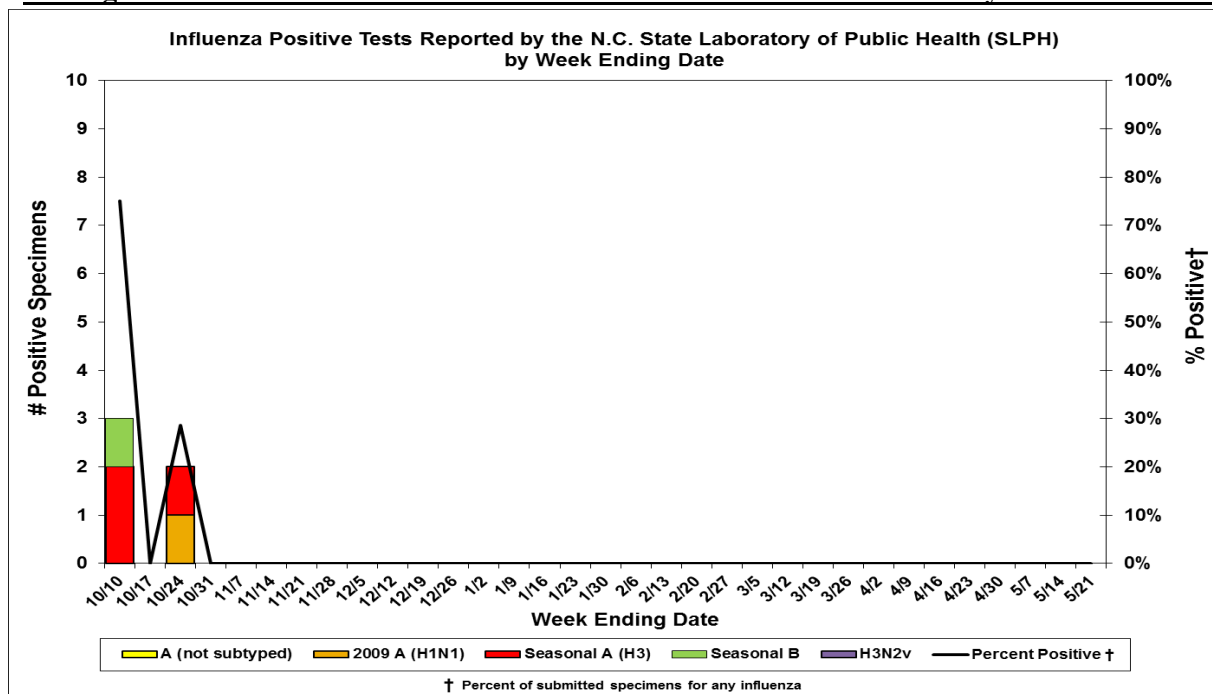
The number of patients admitted to the hospital with fever plus respiratory symptoms in the absence of a known cause other than influenza is reported on a weekly basis by Public Health Epidemiologists (PHEs) located in seven of the largest hospital networks across North Carolina. The graph below shows the number of acute respiratory illness admissions to participating hospitals by age group.

In conjunction with other surveillance information, these data help us monitor for changes in severity of respiratory illness during periods when influenza is circulating. Please note that these reports are not limited to patients with laboratory-confirmed influenza infection. Also, these numbers reflect admissions to participating hospitals only and might not be reflective of the entire state.



- Acute respiratory admissions increased during week 49 (ending 12/12/2015).
- The highest number of acute respiratory admissions during week 49 was among patients age 25–64 years followed by age 65 and over.

## Virologic Surveillance Information from the North Carolina State Laboratory of Public Health



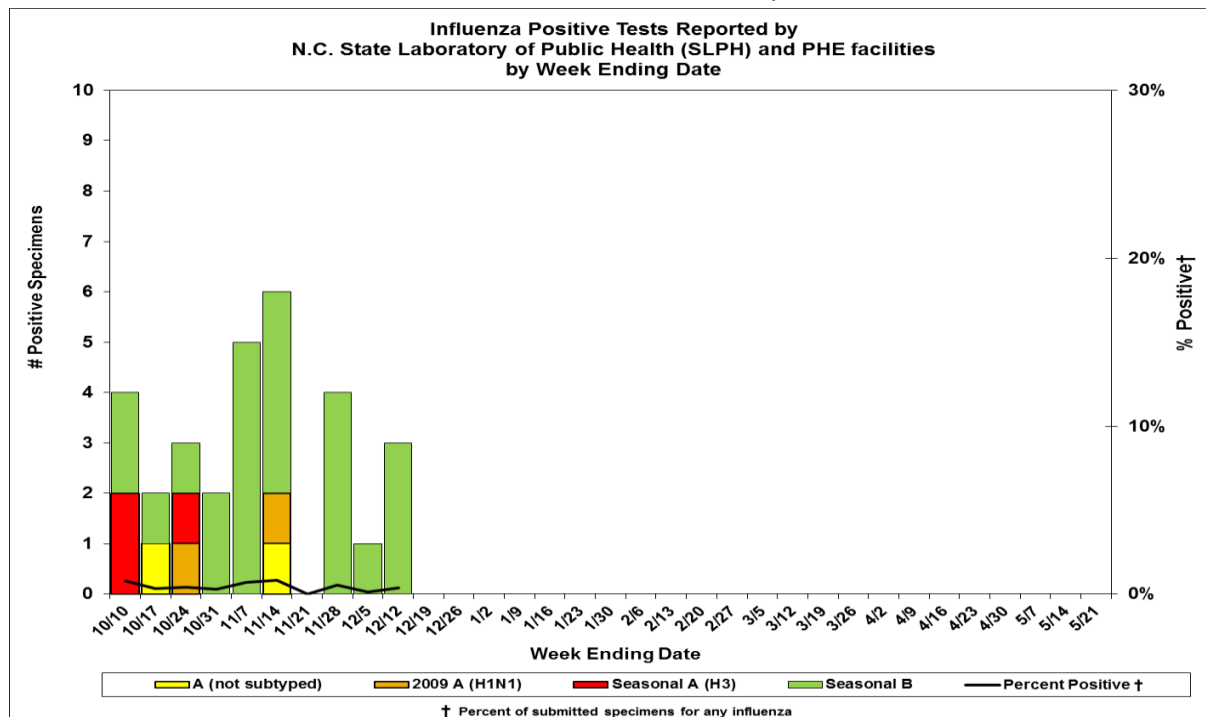
### INFLUENZA VIRUS ISOLATES FROM IN-STATE PATIENTS IDENTIFIED BY THE STATE LABORATORY OF PUBLIC HEALTH 2015-2016 SEASON\*

Virus Type	# New Positive Results (12/5/15 - 12/12/15)	# Cumulative Positive Results (10/4/15 - 12/12/15)
A (subtype unknown)	0	0
2009 A(H1N1)	0	1
A/H3	0	3
A/H3N2v	0	0
B	0	1
Total	0	5

\* 2015-2016 influenza season began October 4, 2015.

NOTE: This table includes isolates tested as of 10/4/2015.

This table does not include influenza isolates identified by other laboratories.

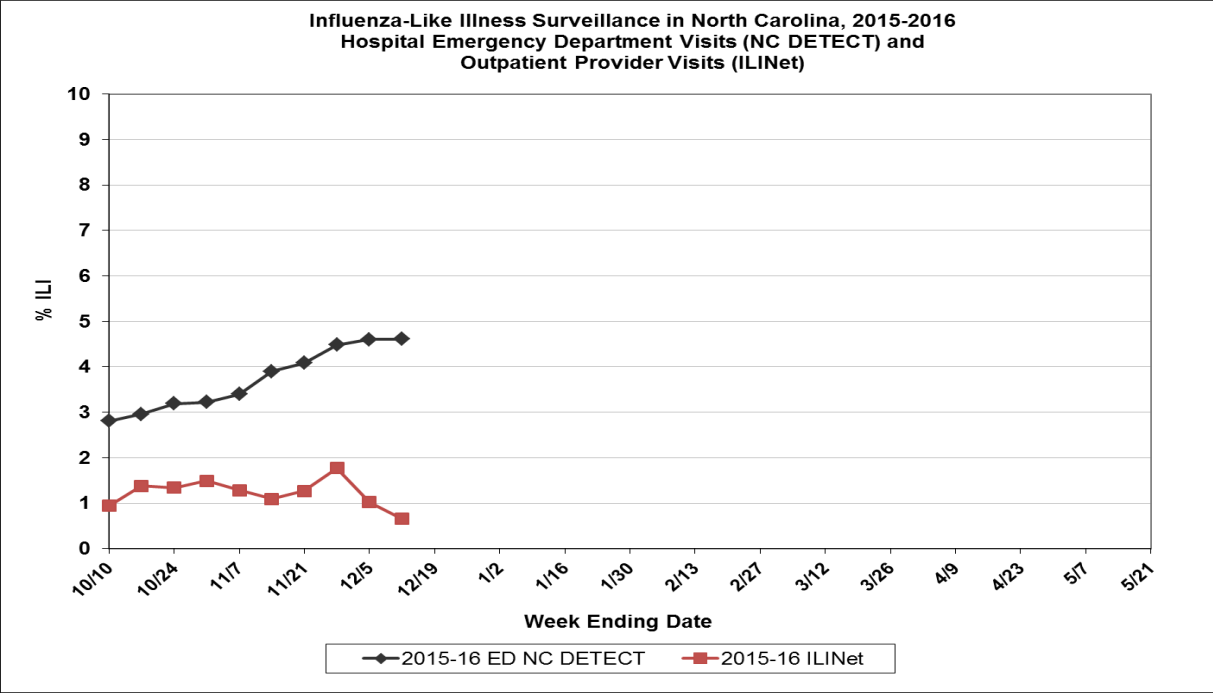


N.C. Weekly Influenza Summary –December 12, 2015

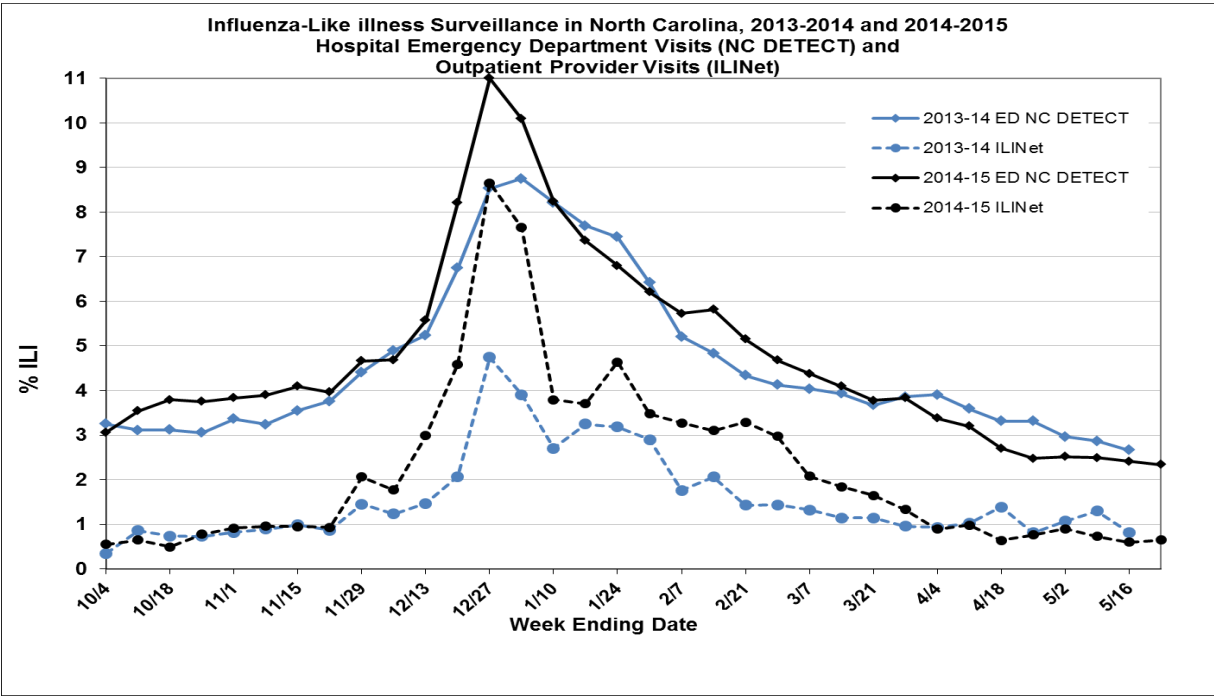
**North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) ILI Surveillance**

Near real-time syndromic surveillance for ILI is conducted through the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT). This system uses a variety of data sources including emergency departments (EDs). NC DETECT is currently receiving data daily from 122 of the 123 24/7 EDs in North Carolina. The NC DETECT ILI syndrome case definition includes any case with the term “flu” or “influenza”, or at least one fever term and one influenza-related symptom.

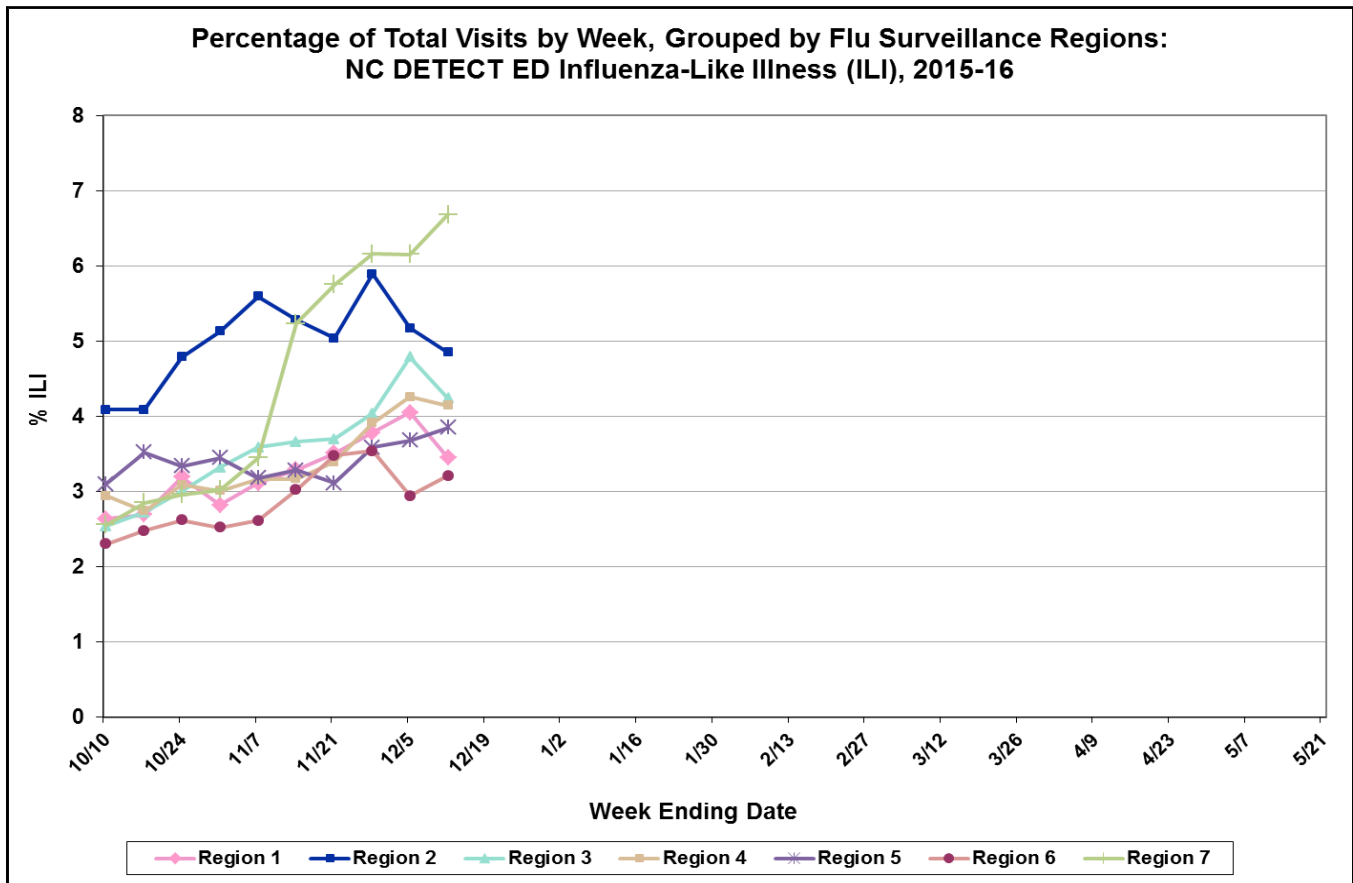
The proportion of ED visits meeting the ILI syndrome definition is monitored throughout the year and compared to data obtained from Influenza-like Illness Surveillance Network (ILINet). In past years, data from the two systems have shown similar trends (below). The higher proportion of ILI seen in NC DETECT compared to ILINet reflects differences in the case definitions and patient populations rather than a difference in the sensitivity of these surveillance systems.



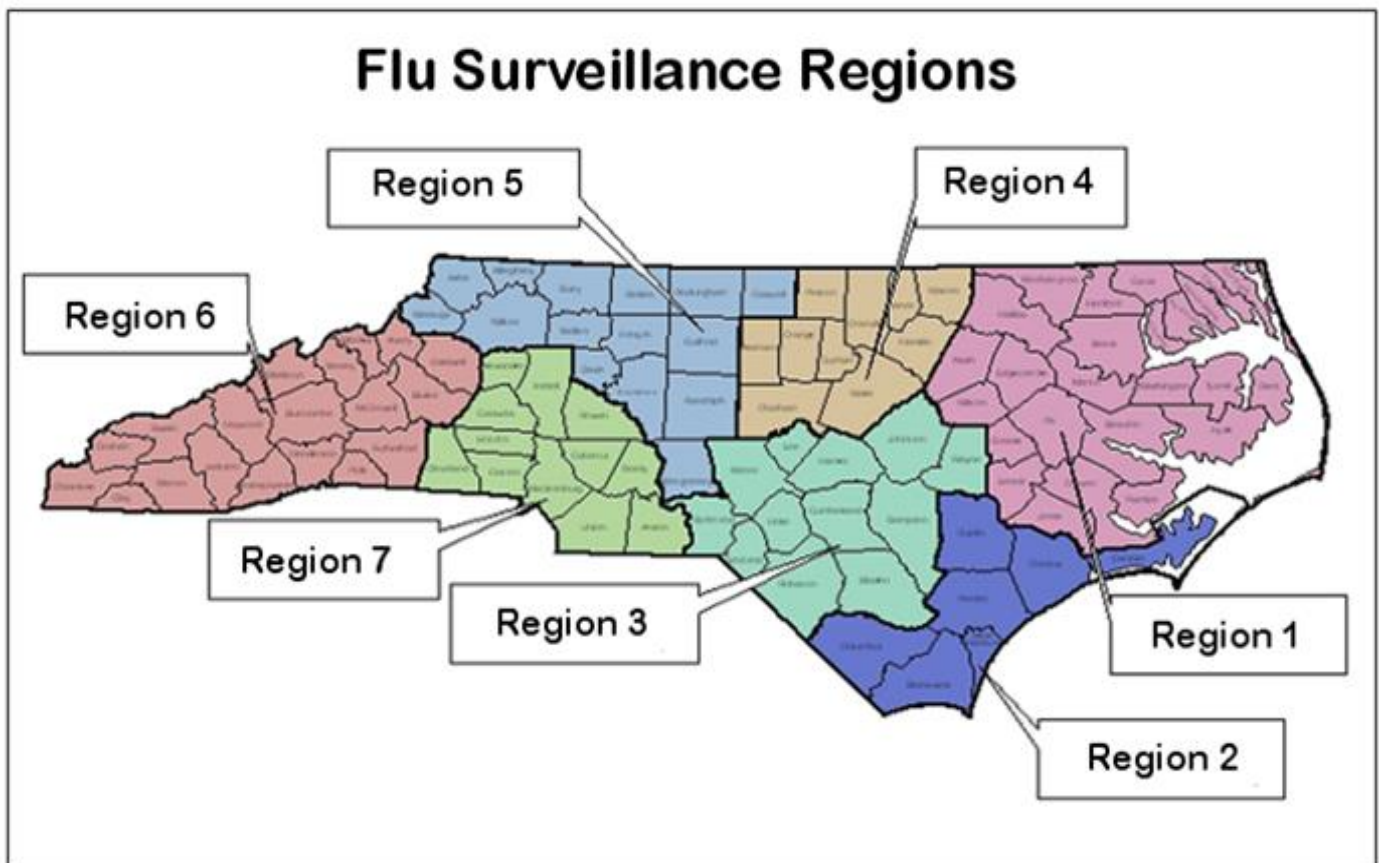
**2013-2015 Influenza Seasons: Shown For Comparison**







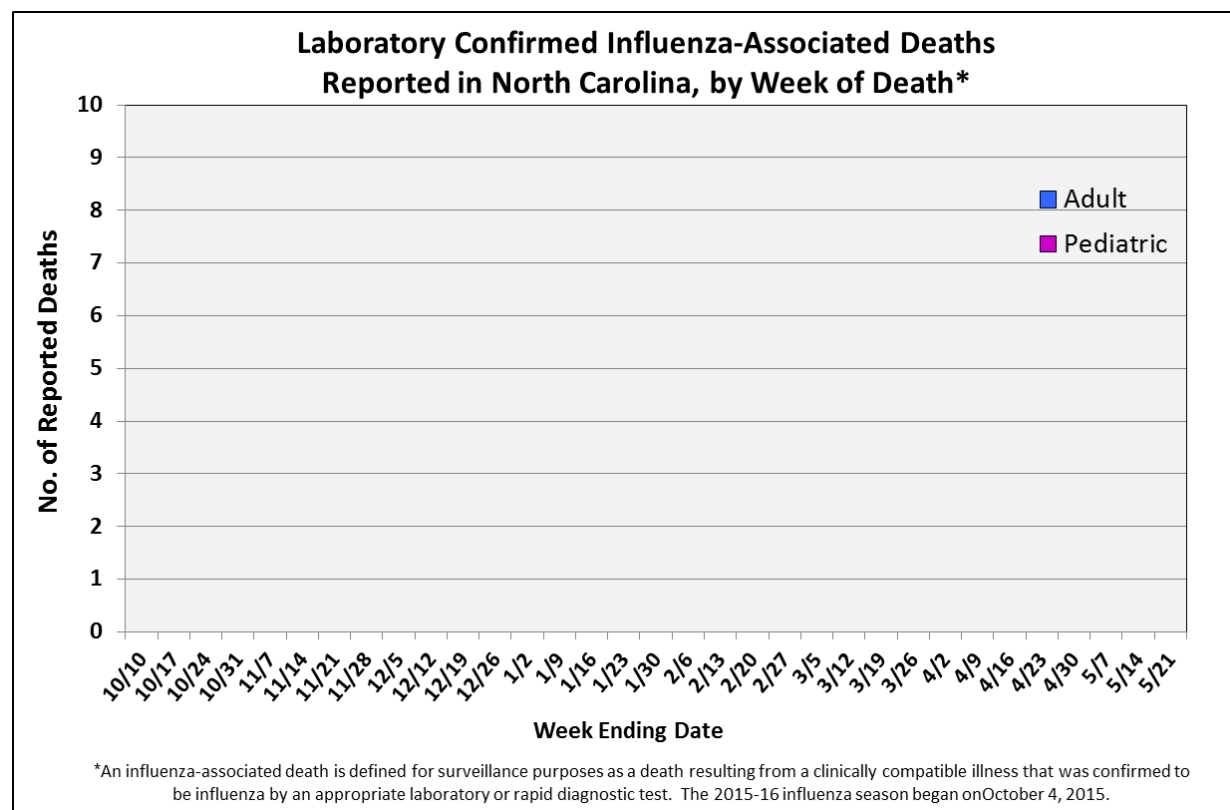
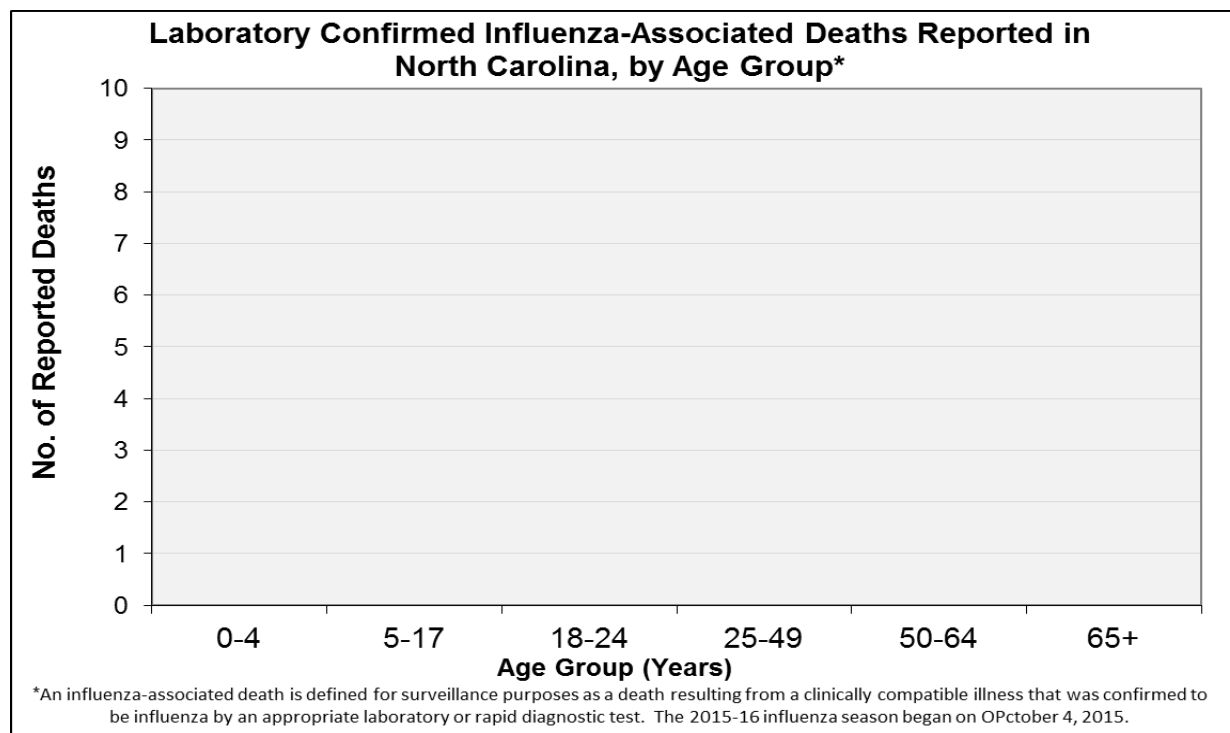
**NOTE:** This graph begins with data starting week ending October 10, 2015 for the 2015–2016 influenza season.





NC Influenza-Associated Deaths*	
Influenza-Associated Deaths 12/12/2015 – 12/12/2015	Total Influenza-Associated Deaths Since Week 40 (ending 10/10/15)
0	0

\***Influenza-associated Deaths** –This number is based on reports submitted by providers to the North Carolina Division of Public Health. An influenza-associated death is defined for surveillance purposes as a death (adult or pediatric) resulting from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test with no period of complete recovery between the illness and death. Deaths that occurred on or after 10/4/2015 will be reflected in this report for the 2015-2016 season.



**PARTICIPANTS IN NORTH CAROLINA'S INFLUENZA SENTINEL  
SURVEILLANCE PROGRAM THAT HAVE REPORTED DATA TO CDC**

**LOCAL HEALTH DEPARTMENT/DISTRICT OFFICES [24]:**

Alamance County Health Department (Burlington)  
Cabarrus Health Alliance (Kannapolis)  
Caldwell County Health Department (Lenoir)  
Craven County Health Department (New Bern)  
Duplin County Health Department (Kenansville)  
Franklin County Health Department (Louisburg)  
Henderson County Health Department (Hendersonville)  
Johnston County Health Department (Smithfield)  
Lee Primary Care (Sanford)  
Martin County Office [Martin-Tyrrell-Washington County Health District] (Williamston)  
Montgomery County Health Department (Troy)  
Northampton County Health Department (Jackson)  
Pender County Health Department (Burgaw)  
Pitt County Public Health Center (Greenville)  
Richmond County Health Department (Rockingham)  
Rockingham County Health Department (Wentworth)  
Stanly County Health Department (Albemarle)  
Stokes Family Health Center (Danbury)  
Surry County Health and Nutrition Center (Dobson)  
Tyrrell County Office [Martin-Tyrrell-Washington County Health District] (Columbia)  
Union County Health Department (Monroe)  
Wake County Health Department, Children's Clinic (Raleigh)  
Washington County [Martin-Tyrrell-Washington County Health District] (Plymouth)  
Wilkes County Health Department (Wilkesboro)  
Wilson County Health Department (Wilson)

**COLLEGES AND UNIVERSITIES STUDENT HEALTH PROGRAMS [14]:**

Appalachian State University Student Health Services (Boone; Watauga Co.)  
Davidson College Student Health Center (Davidson; Mecklenburg Co.)  
ECU Student Health Services (Greenville; Pitt Co.)  
Elizabeth City State University Student Health Services (Elizabeth City; Pasquotank Co.)  
Elon University R. N. Ellington Health and Counseling Center (Elon; Alamance Co.)  
Fayetteville State University (Fayetteville; Cumberland Co.)  
NC Agricultural & Technical State University Student Health Services (Greensboro; Guilford Co.)  
NC State University Student Health Services (Raleigh; Wake Co.)  
UNC-Chapel Hill Student Health Services (Chapel Hill; Orange Co.)  
UNC-Charlotte Student Health Services (Charlotte, Mecklenburg Co.)  
UNC-Greensboro Student Health Services (Greensboro; Guilford Co.)  
UNC-Pembroke Student Health Services (Pembroke; Robeson Co.)  
Wake Forest University Student Health Services (Winston-Salem; Forsyth Co.)  
Winston-Salem State University (Winston-Salem; Forsyth Co.)

#### **PRIVATE PRACTITIONERS [24]:**

Bakersville Community Medical Center (Bakersville; Mitchell Co.)  
Blue Cross and Blue Shield of N.C. (Durham; Durham Co.)  
Blue Ridge Community Health Services (Hendersonville; Henderson Co.)  
Butner-Creedmoor Family Medicine (Creedmore; Granville Co.)  
Colerain Primary Care (Colerain; Bertie Co.)  
Dilworth Pediatrics (Charlotte; Mecklenburg Co.)  
ECU Brody School of Medicine – Department of Pediatrics (Greenville; Pitt Co.)  
Family Care Center (Taylorsville; Alexander Co.)  
Growing Child Pediatrics (Raleigh, Wake Co.)  
Haywood Pediatric and Adolescent Medicine Group, PA (Clyde; Haywood Co.)  
High Country Community Health (Newland; Avery, NC)  
Hot Springs Health Program (Marshall; Madison Co.)  
MEDAC Health Services at Shipyard Blvd. (Wilmington; New Hanover Co.)  
MEDAC Health Services at Porter's Neck (Wilmington; New Hanover Co.)  
MEDAC Health Services at Military Cutoff (Wilmington; New Hanover Co.)  
Murfreesboro Primary Care (Murfreesboro; Hertford Co.)  
Oxford Family Physicians (Oxford; Granville Co.)  
PrimeCare (Winston-Salem; Forsyth Co.)  
PrimeCare of Kernersville (Kernersville; Forsyth Co.)  
PrimeCare of Northpoint (Winston-Salem; Forsyth Co.)  
Roanoke Chowan Community Health Center (Ahoskie; Hertford Co.)  
SAS Institute Health Care Center (Cary; Wake Co.)  
Sisters of Mercy Urgent Care, South (Asheville; Buncombe Co.)  
Sisters of Mercy Urgent Care, West (Asheville; Buncombe Co.)  
Stanly Family Care Clinic (Albemarle; Stanly Co.)

#### **HOSPITALS [4]:**

Blue Ridge Regional Hospital (Spruce Pine; Mitchell Co.)  
Durham VAMC (Durham; Durham Co.)  
Scotland Healthcare System (Laurinburg, Scotland Co.)  
Seymour Johnson Air Force Base Medical Group (Goldsboro; Wayne Co.)

#### **TOTAL SENTINELS ENROLLED – 68**

Counties covered (48): Alamance (2), Alexander, Avery, Bertie, Buncombe (2), Cabarrus, Caldwell, Craven, Cumberland, Duplin, Durham (2), Forsyth (5), Franklin, Granville (2), Guilford (2), Haywood, Henderson (2), Hertford (2), Johnston, Lee, Madison, Martin, Mecklenburg (3), Mitchell (2), Montgomery, New Hanover (3), Northampton, Orange, Pasquotank, Pender, Pitt (3), Richmond, Robeson, Rockingham, Scotland, Stanly (2), Stokes, Surry, Tyrrell, Union, Wake (4), Washington, Watauga, Wayne, Wilkes, Wilson